



## Responding to Hurricane Andrew:

### *The 10th Mountain Deploys to Florida...*

*Hurricane Andrew devastated south Florida on August 24, 1992. Hardest hit were Homestead, Florida City, and other communities in south Dade County. By request of Florida's governor and approval of President Bush, federal troops, active and reserve, were sent to Florida to assist in the cleanup operation. The 10th Mountain Division and the 43rd Engineer Battalion assisted in this mission.*

Three days after Hurricane Andrew ravaged the Florida mainland south of Miami, the XVIII Airborne Corps sent a "be-prepared" mission to the 10th Mountain Division, Fort Drum, New York. The 10th would deploy to south Florida to assist in the hurricane relief operations. With sketchy details and some assumptions, the 10th began mission analysis and planning.

Leading problems included how large of a force to deploy, how to tailor the engineer assets, and what kinds of equipment and how much of each type to send.

On the evening of August 30, the 10th Mountain received their deployment order: leaders would go first to analyze the situation and provide guidance for the division's deployment. Along with the order were deployment specifics that addressed time lines, staging areas, and sorties—but little information about the ground mission. Therefore, the same problems (kinds of equipment and amount of each) existed, so they

relied on their engineer battalion's initial planning. As a minimum, the 10th decided to take chain saws, small emplacement excavators (SEEs), bucket loaders, dump trucks, carpenter and pioneer tools, and sappers and equipment operators trained to use the equipment.

#### The Engineer Battlefield

When the 10th arrived in Florida, the soldiers' initial reaction to the hurricane's devastation was awe. What they had seen in newspapers or on television was nothing compared with the actual destruction in Homestead, Florida City, and other parts of south Dade County. Homestead Air Force Base was hit head-on; the only thing left undamaged was the runway.

Trees were toppled everywhere, utility lines and traffic lights were down, mobile-home parks were flattened, and debris was everywhere. Portions of roofs in many housing areas were ripped off, exposing interiors to the elements;

water damage was extensive. Gale-force winds, upward of 180 miles per hour, had ripped glass from every building. As a result, there were mountains of debris, traffic gridlocks, utility outages, and general crisis and fear throughout the devastated area. For a castlebearer, it was an engineer battlefield.

The 841st Engineer Battalion, Florida Army Reserve, was the first engineer force on the ground in the Task Force Mountain sector. They were tasked to clear debris in Florida City, a rural agricultural community south of Homestead. Their initial efforts were to clear trees, fencing, house debris, and telephone poles from roadways and thoroughfares.

Equipment operators from the 43rd Engineer Battalion, Fort Benning, supported the 841st. A brigade-sized task force from the 82nd Airborne Division, Fort Bragg, was located north of the Task Force Mountain sector and was supported by the 27th Engineer Battalion, Fort Bragg. The 20th Engineer Brigade, Fort





Bragg, provided general support to the Corps area of operations.

The equipment needed to clean up the debris and keep all the engineers ready to deploy from Fort Drum working was not available. To solve this problem, the 10th Mountain Division enlisted help from the Joint Task Force Engineer; Commander, 20th Engineer Brigade; and Jacksonville District Commander, Corps of Engineers to contract for commercial bucket loaders and dump trucks. They initially requested 50 bucket loaders and 200 dump trucks for the entire corps sector because no one knew how far the engineers would have to haul the debris.

Three days later, corps contracts brought the initial equipment package of two loaders and ten trucks into the Task Force Mountain sector. The next day an additional 15 bucket loaders and 75 dump trucks arrived. Using the commercial equipment, Task Force Mountain personnel began to organize the debris clearance mission. Together, infantry, artillery, and engineer units brought debris to the roadside, helped fill bucket loaders and dump trucks, and cleared the areas. The combined



**Top:** The magnitude of the devastation from Hurricane Andrew challenged relief efforts.

**Bottom:** Cutting through the debris was a major task for engineers.





Military and civilian contracted engineer equipment hauls debris from public rights-of-way to dump sites.

arms teams used commercial equipment to clean up debris while organic equipment was being flown in. An unexpected source of support came from many volunteer organizations and municipalities in Florida and other southeastern states. These groups sent bucket loaders, dump trucks, and cherry pickers to augment equipment in the Homestead Department of Public Works.

### Organizing for Success

**W**ith the equipment on-site, the 10th Mountain Division assigned work sectors to the 1st and 2nd Brigades, the aviation brigade, and the division artillery, with an engineer company attached to each unit. This plan of action had several positive results: each brigade was responsible for all relief activities within its sector; the 10th Mountain Division leaders and Florida City, Homestead, and south Dade County officials interacted to keep on top of the cleanup operations; brigade commanders as-

signed work priorities; and brigade engineers advised the maneuver commanders of these priorities.

The top priority was to remove debris from areas that affected sanitation or impeded rights of way. After debris removal in these critical areas was under control, the engineer focus shifted to constructing relief camps and food distribution sites (tent cities), assisting public utility crews, and clearing debris from parks and recreation areas.

The 937th Group constructed two relief camps with 700 and 1,200 person capacities, respectively. Each camp had shower and laundry facilities, administration centers, and dining areas. Utility engineers installed the electrical, water, and sewage systems in the camps. The 586th Engineer Company, with 45 bridge trucks, transported humanitarian supplies to the camps. Restoring school grounds then became a joint effort. Army troops cleared the exterior grounds; Navy Seabees and Marines repaired roofs and interiors. As a result of this

joint effort, more than 90 percent of the damaged schools opened by September 14th.

Task Force Mountain succeeded for several reasons, one of which was the integration of echelons above corps (EAC) engineer units. In early September, FORSCOM alerted and deployed several engineer forces into the theater. The XVIII Airborne Corps placed the 937th Engineer Group OPCON to the 10th Division. The 937th served as the command and control headquarters for the 43rd Engineer Battalion, the 63rd Engineer Company, the 586th Engineer Company, and the 841st Engineer Battalion. The 41st Engineer Battalion remained organic to the 10th Mountain Division, with most of its assets attached to brigades in several sectors. Their assets included sappers, chain saws, SEEs, and dump trucks.

The EAC units meshed quickly because the 41st Engineer Battalion's engineer operations section controlled the engineer forces. The commander of the 41st served as the division engineer, while the commander of the 937th Group



served as the senior engineer commander to Task Force Mountain. With this arrangement, integrating EAC forces was transparent at the division level and differences in reporting and standard operating procedures were resolved within engineer channels.

The critical nature of the relief effort did not allow for normal staff integration procedures. The EAC had to respond quickly with what they had available to provide immediate relief to the hurricane victims.

Other organizations contributed to the success of the disaster relief effort. The Corps of Engineers, Jacksonville District, augmented with volunteers throughout the Army Corps of Engineers, contracted for ice, potable water, dumpsters, portable toilets, roof covering, trailers for schools, fencing, and utility services. Six large private companies opened burn sites throughout the sector so military and civilian units could haul debris into them. The Federal Emergency Management Agency (FEMA) contracted for clearing mobile-home parks and hooking up utilities to temporary trailers, which became semipermanent homes to displaced families living in relief camps.

### Finishing the Mission


**T**ask Force Mountain's participation in the Hurricane Andrew relief operations was a success. Initially, however, they were not well synchronized with the Corps of Engineers. To solve that problem, USACE liaisons coordinated with the 10th Mountain Division and local municipal and county governments to focus efforts on the immediate needs of communities hit by the hurricane. Commercially contracted engineer equipment allowed troops to start cleanup operations within days after the dis-



Members of the 202d Red Horse Engineer Squadron, as part of the joint relief effort, load a log onto an articulating front loader. (Photo by TSGT Rose Reynolds, USAF.)

aster. Brigade engineers in each sector defined their missions and assigned priorities based on need. Aggressive, close coordination with civic organizations, volunteers, FEMA, and the Corps of Engineers allowed divisional engineers to voice their concerns and needed actions. The results were quick relief from the crisis and a clear path toward recovery. Military troop units redeployed, and by early October, FEMA and USACE were the main agencies involved in the continuing relief operations.

Even though disaster relief is not a commonly trained mission, it did not differ much from a wartime situation. Mission analysis at the home station, early assessment in sector, and synchronization of key assets allowed 10th Mountain Division engineers to exert their expertise on a different kind of battlefield. They responded quickly and efficiently to this time-sensitive mission and were effective throughout the entire operation. Their responsive and construc-

tive efforts truly benefited the citizens of south Florida. 

*Lieutenant Colonel Peter T. Madsen is the battalion commander for the 41st Engineer Battalion, 10th Mountain Division. Other assignments included tours with the 82nd Airborne Division, Germany, and the Missouri River Division. A CGSC graduate, he holds a bachelors degree from West Point and a masters degree in civil engineering from Georgia Tech.*

*Major Wayne Whiteman is the S3 of the 41st Engineer Battalion. Previous assignments include assistant professor of civil and mechanical engineering at West Point, company commander for the 2nd Engineer Battalion, and S4 for the 76th Engineer Battalion. He is a graduate of West Point and CGSC and holds a masters degree in civil engineering from the Massachusetts Institute of Technology.*